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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,253	02/13/2002	Masahiro Sugihara	2001-1733A	4419

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WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER

EDWARDS, LAURA ESTELLE

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 03/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,253

Applicant(s)

SUGIHARA ET AL.

Examiner

Laura E. Edwards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-6 and 8, drawn to an apparatus, classified in class 118, subclass 117.
- II. Claim 7, drawn to a method, classified in class 427, subclass 356.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used for another and materially different process such as coloring a woven fabric.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Nils Pedersen on 3/17/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-6 and 8. Affirmation of this election must be made by applicant in replying to this Office action. Claim 7 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

Figures 5-8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informality: on page 4, line 1, "wight" should be changed to --weight--.

Appropriate correction is required.

Claim Objections

Claims 6 and 8 are objected to because of the following informalities: in claim 6, line 3, "fist" should be changed to --first-- and in claim 8, page 26, line 15, "fist" should be changed to --first--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, lines 5-6, it is unclear as to the meaning of the phrase, "a supporting hole in which said cylindrical rod is rotatably fitted via a lubricating liquid". It is unclear whether "fitted via a lubricating liquid" should be --fitted in a lubricating liquid--. Clarification is necessary as the language is awkward.

In claim 6, line 8, "said applicator roll" lacks antecedent basis.

For claim 8, lines 16-17, see the response above to claim 6, lines 5-6.

For claim 8, line 19, see the response above to claim 6, line 8.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Rantanen (US 5,567,479).

Rantanen teaches a coating apparatus comprising a first roll (2) that contacts with paper traveling continuously, directly or through a second roll (3), a cylindrical rod (11) with an outer peripheral surface which is disposed parallel to the first roll and engages with the first roll and

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rotates in a predetermined direction, a coating layer, formed on the outer peripheral surface of the rod which has the property of releasing a coating liquid (see col. 3, lines 12-17), and coating liquid supply means (16) for supplying coating liquid to a nip surface portion between the first roll and rod in the predetermined direction, wherein the coating liquid supplied from the coating liquid supply means forms a film of coating liquid on the outer peripheral surface of the first roll, and after a thickness of the coating liquid film is adjusted at the nip surface portion, the film is transferred from the first roll onto a surface of the paper directly or indirectly through the second roll.

With respect to claim 2, see col. 6, lines 62+ to col. 7, lines 1-7 whereby the coating bar is coated or layered with silicone.

With respect to claim 3, see col. 3, lines 12-17 whereby the coating bar is coated or layered with TEFLON or polytetrafluoroethylene.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rantanen (US 5,567,479) in view of Bordner (US 5,283,121).

The teachings of Rantanen have been mentioned above but Rantanen is silent concerning the outer peripheral surface of the rod having fine unevenness on which the coating layer is formed. However, it was known in the art, at the time the invention was made to construct a TEFLON coated metal based coating roller via providing a fine uneven layer about the metal layer in order to facilitate bonding of the TEFLON to the metal layer in order to provide an abrasion resistant anti-stick coating roller as evidenced by Bordner (see col. 1, lines 35-59). It would have been obvious to one of ordinary skill in the art to construct the TEFLON coated metal based rod of Rantanen via providing an uneven outer peripheral metal surface as taught by Bordner in order to facilitate bonding of the TEFLON to the metal layer.

Claims 1-4, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alheid et al (US 4,245,582) in view of Rantanen (US 5,567,479).

Alheid et al teach a coating apparatus comprising a first roll (10) that contacts with paper traveling continuously and directly, a cylindrical rod (18) with an outer peripheral surface which is disposed parallel to the first roll and engages with the first roll and rotates in a predetermined direction, the outer peripheral surface including a chrome plated layer, the cylindrical rod being set within a plastic based rod holder (16), coating liquid supply means (not shown, see col. 3, lines 15-18) for supplying coating liquid to a nip surface portion between the first roll and rod in

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the predetermined direction, wherein the coating liquid supplied from the coating liquid supply means forms a film of coating liquid on the outer peripheral surface of the first roll, and after a thickness of the coating liquid film is adjusted at the nip surface portion, the film is transferred onto the paper directly. Alheid et al fail to teach or suggest a plastic based rod having an outer peripheral surface that has the property of releasing a coating liquid. However, it was known in the art at the time the invention was made, to provide a TEFLON coated rod set within a plastic based rod holder to effect a doctor device that prevented coating agent from adhering to the rod and prevented streak formation of coating agent film on a paper web as evidenced by Rantanen (see col. 3, lines 12-24 and col. 4, lines 64-67). It would have been obvious to one of ordinary skill in the art to provide a TEFLON coated doctor bar as taught by Rantanen in the Alheid et al apparatus in order to prevent streak formation of coating agent on the paper web.

With respect to claim 2, even though Alheid et al are silent concerning a silicone based anti-stick coating layer on the rod, it was known in the art at the time the invention was made, to provide silicone as an anti-stick coating on a doctor rod as evidenced by Rantanen (see col. 7, lines 1-7). It would have been obvious to one of ordinary skill in the art to provide a silicone based anti-stick coating layer as taught by Rantanen on the Alheid et al rod as an alternative anti-stick coating composition for the cylindrical rod.

With respect to claim 4, Alheid et al recognize plating of the rod with chromium (see col. 6, lines 48-49) such that one of ordinary skill in the art would expect that the anti-stick coating layer as taught by Rantanen would be applied via any conventional coating process from spraying, dipping, or even plating so long as the anti-stick coating layer resulted on the cylindrical rod.

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With respect to claims 6 and 8, see Alheid et al rod holder (16) having a supporting hole (20) in which the rod is rotatably fitted in lubricating liquid (64), a recess (26) opposite the support hole, the rod holder being constricted between the supporting hole and the recess, and a tube (30) fitted in the recess, the tube to be controlled in expansion.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alheid et al (US 4,245,582) and Rantanen (US 5,567,470) as applied to claims 1-4, 6, and 8 above, and further in view of Bordner (US 5,283,121).

The teachings of Alheid et al and Rantanen have been mentioned above. While Rantanen teaches the use of a TEFLON coated metal based rod, Rantanen is silent concerning the outer peripheral surface of the rod having fine unevenness on which the coating layer is formed. However, it was known in the art, at the time the invention was made to construct a TEFLON coated metal based coating roller via providing a fine uneven layer about the metal layer in order to facilitate bonding of the TEFLON to the metal layer in order to provide an abrasion resistant anti-stick coating roller as evidenced by Bordner (see col. 1, lines 35-59). It would have been obvious to one of ordinary skill in the art to construct the TEFLON coated metal based rod of the apparatus as defined by the combination above via providing an uneven outer peripheral metal surface as taught by Bordner in order to facilitate bonding of the TEFLON to the metal layer.

Conclusion

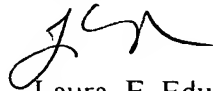
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Edwards whose telephone number is (703) 308-4252.

The examiner can normally be reached on M-Th/First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and Same as above for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Laura E. Edwards
Primary Examiner
Art Unit 1734

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March 19, 2003